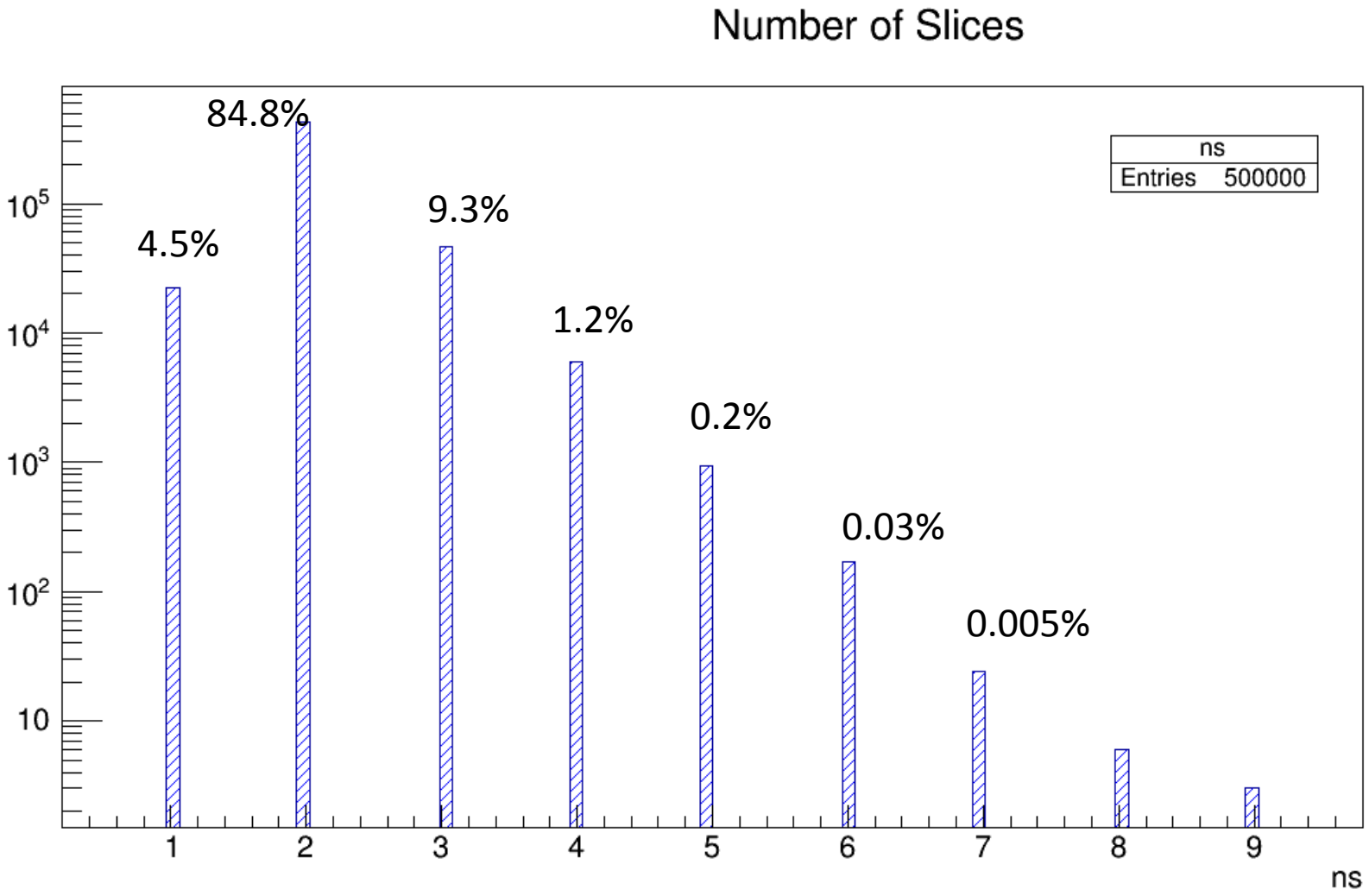
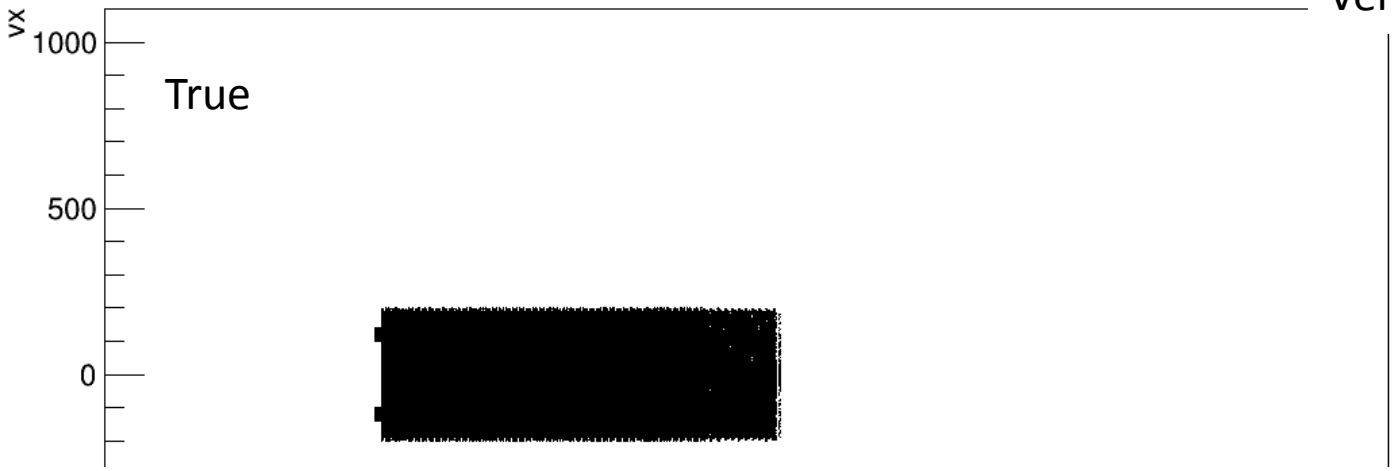
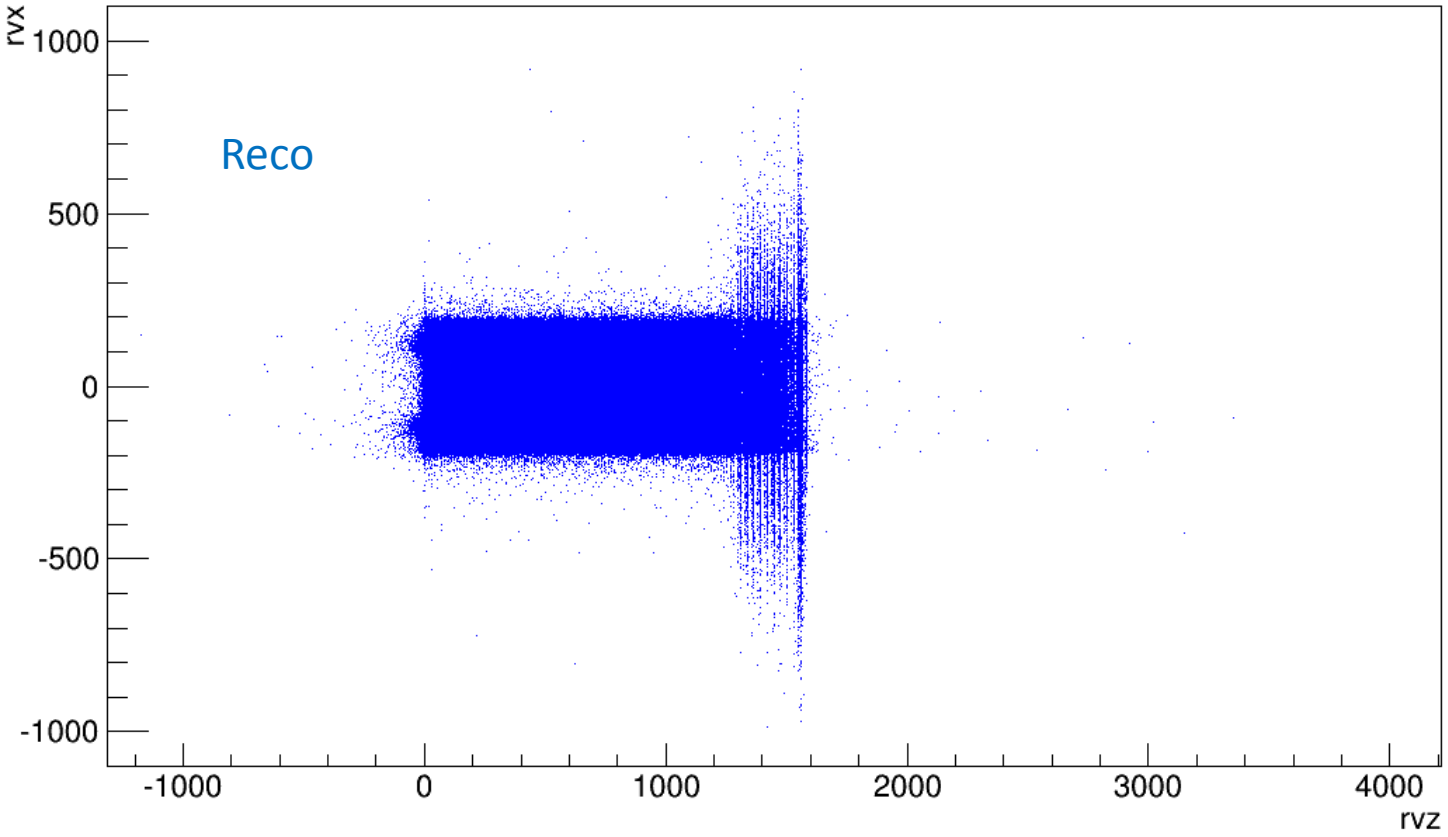
- 500k nue events @ ND
  - → 90.5% nue, 9.5% antinue
  - →Vertex found in 95% of cases
  - →Number of slices

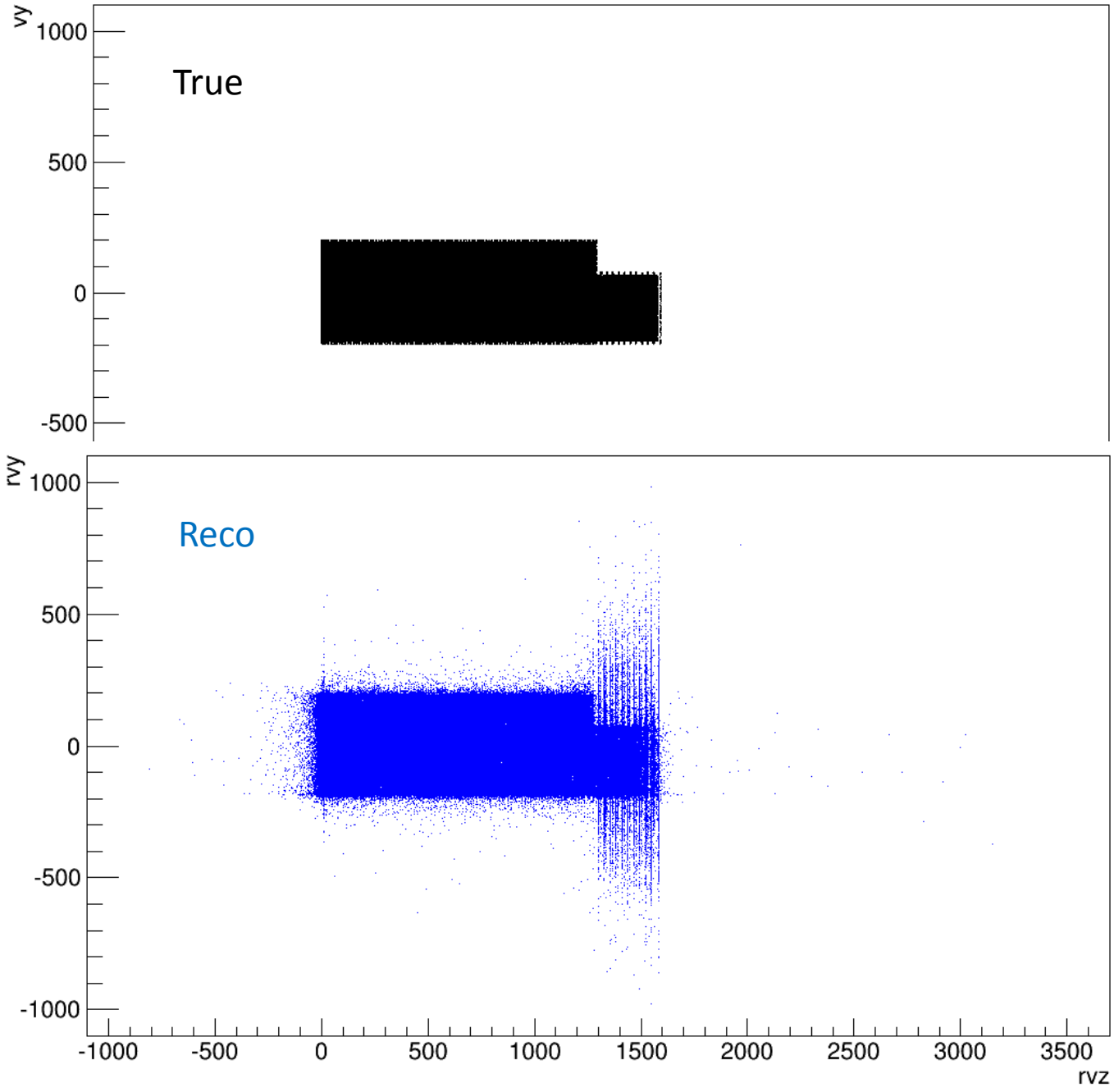


Vertex Position – XZ



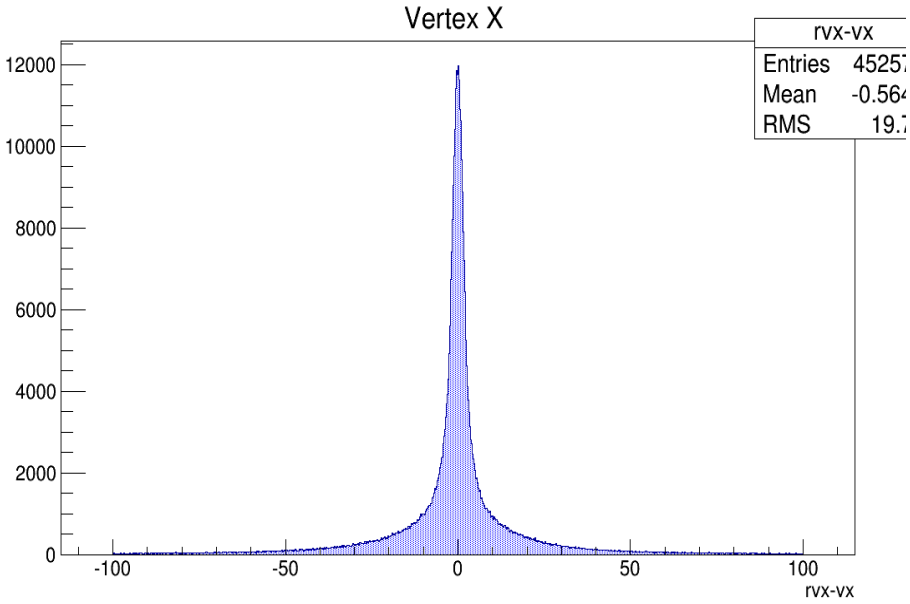


Vertex Position – YZ

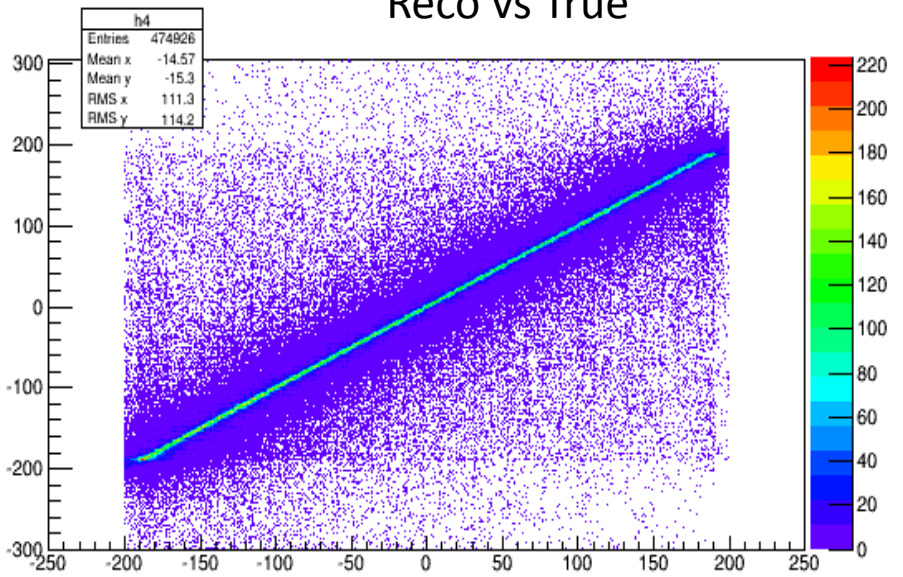


Vertex X position

Reco-True

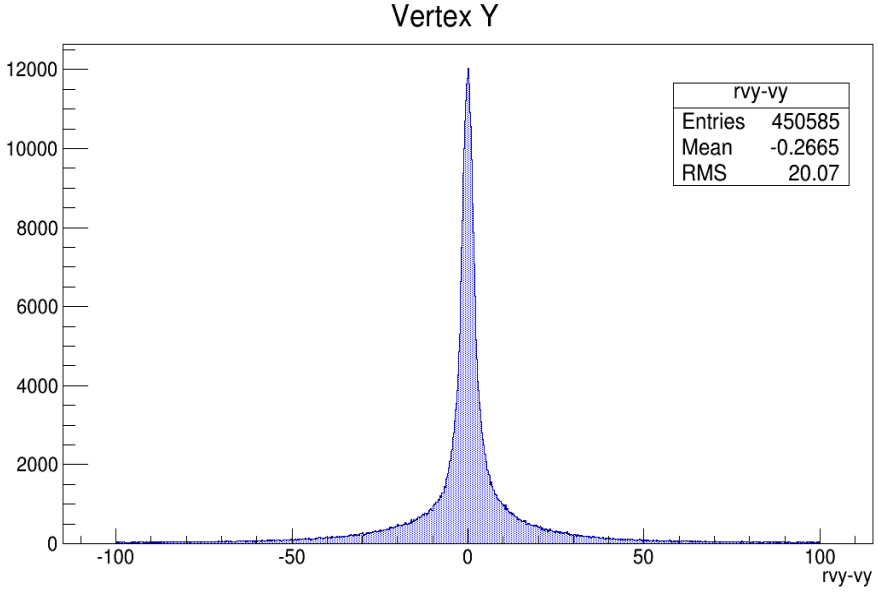


Reco vs True

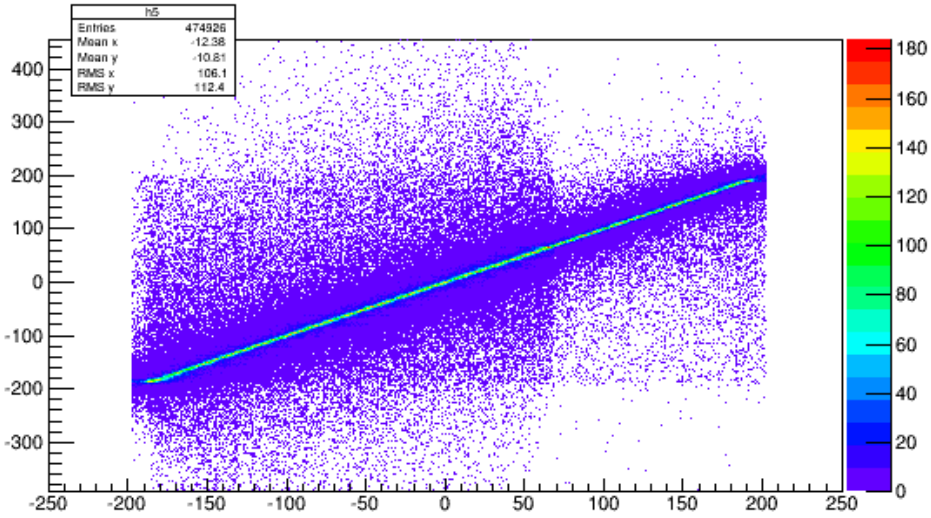


Vertex Y position

Reco-True

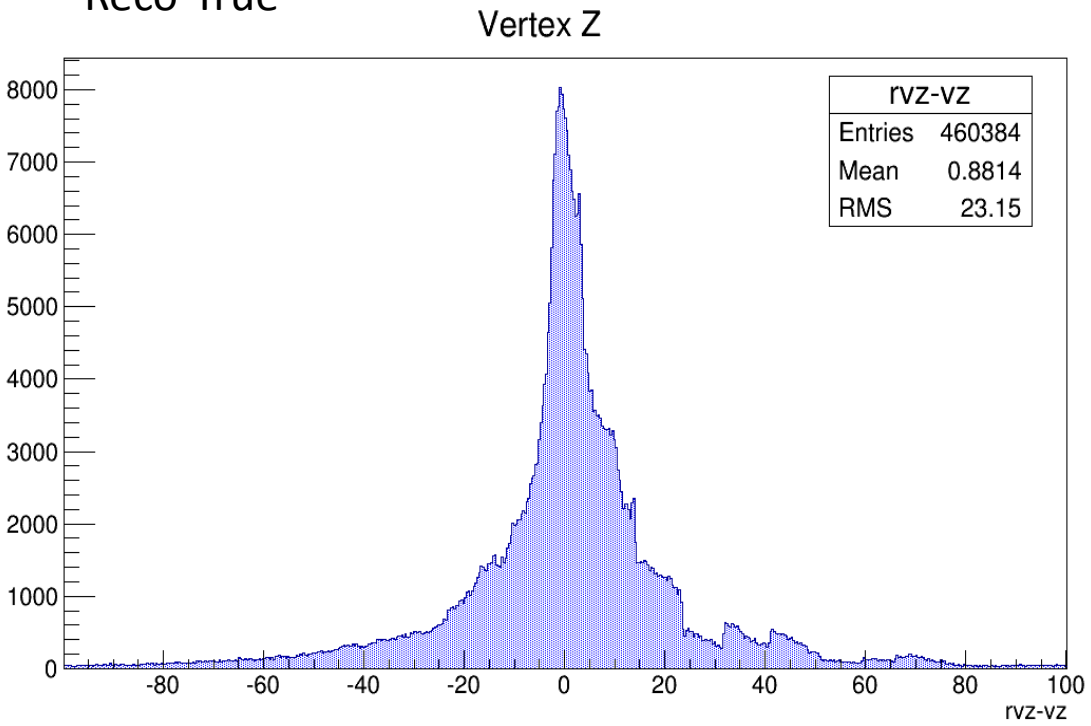


Reco vs True

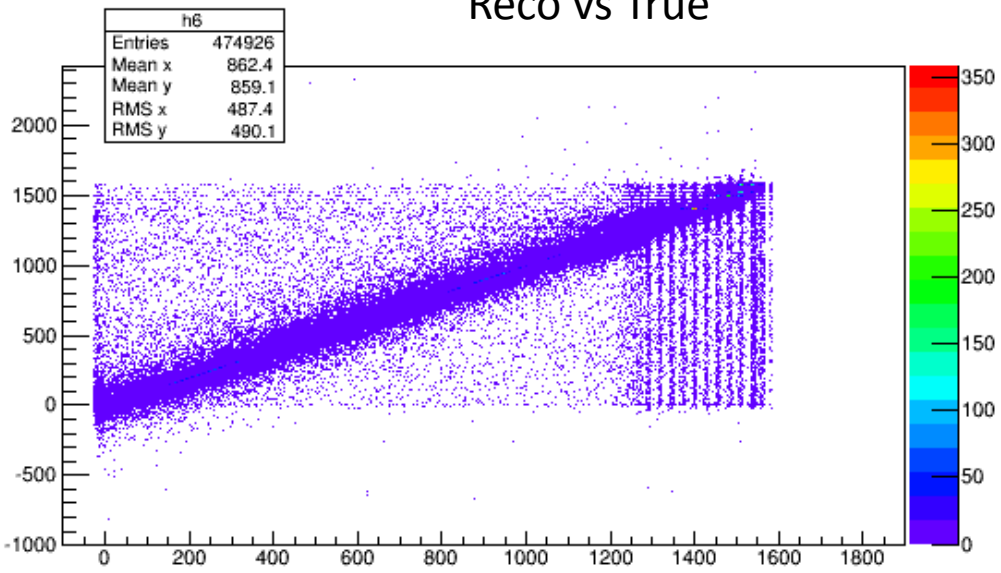


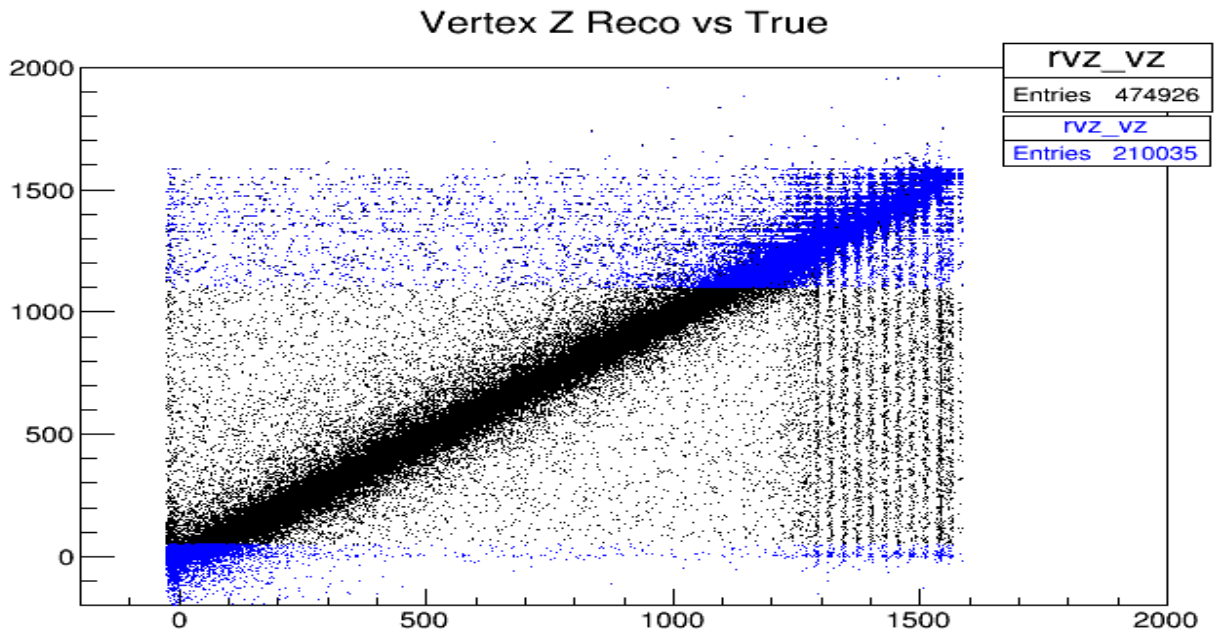
Vertex Z position

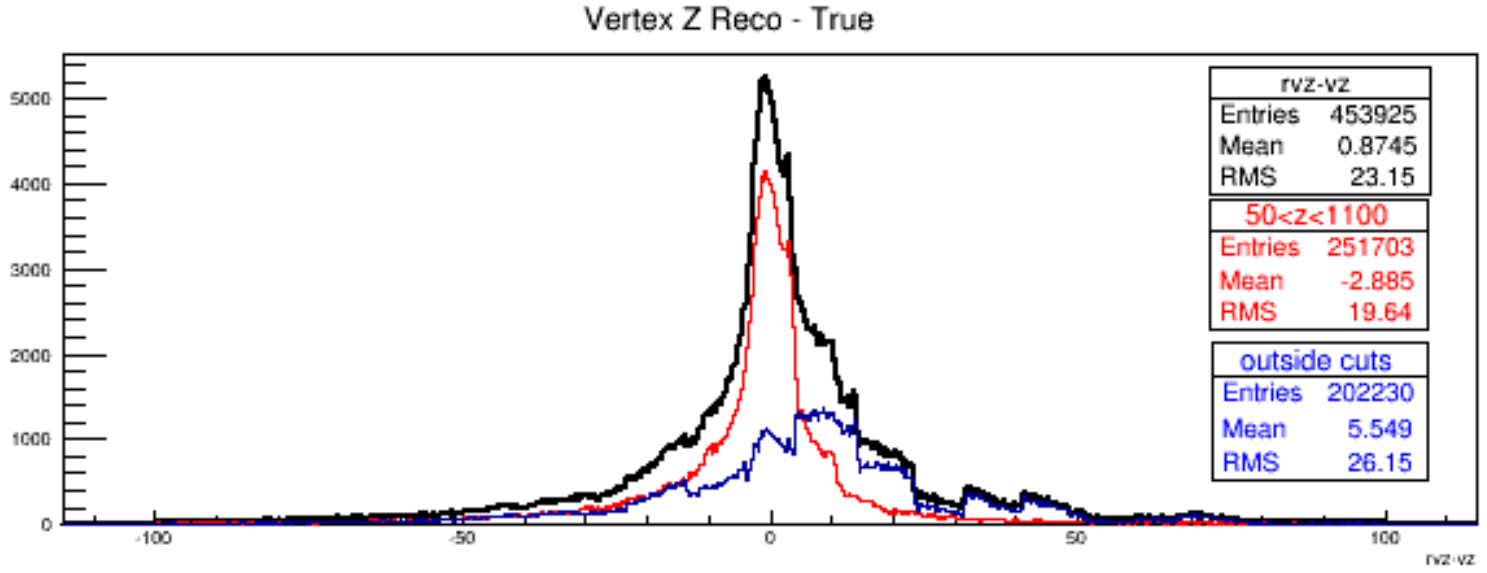
Reco-True

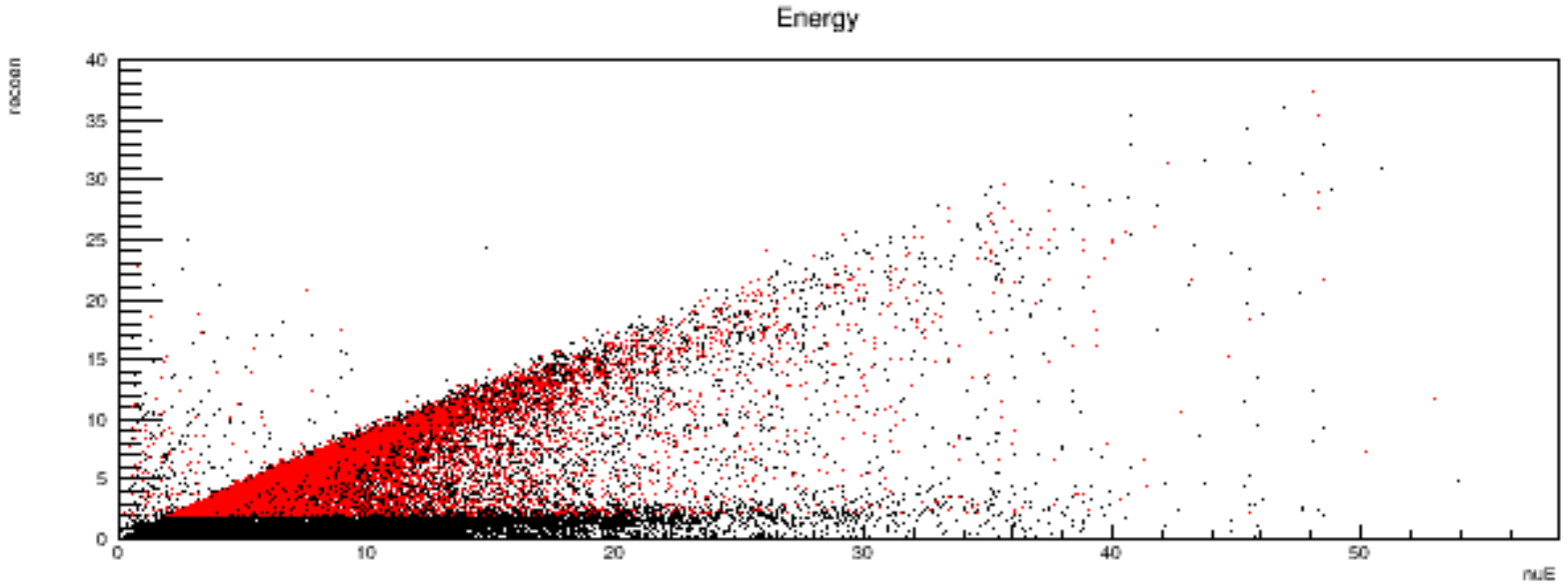


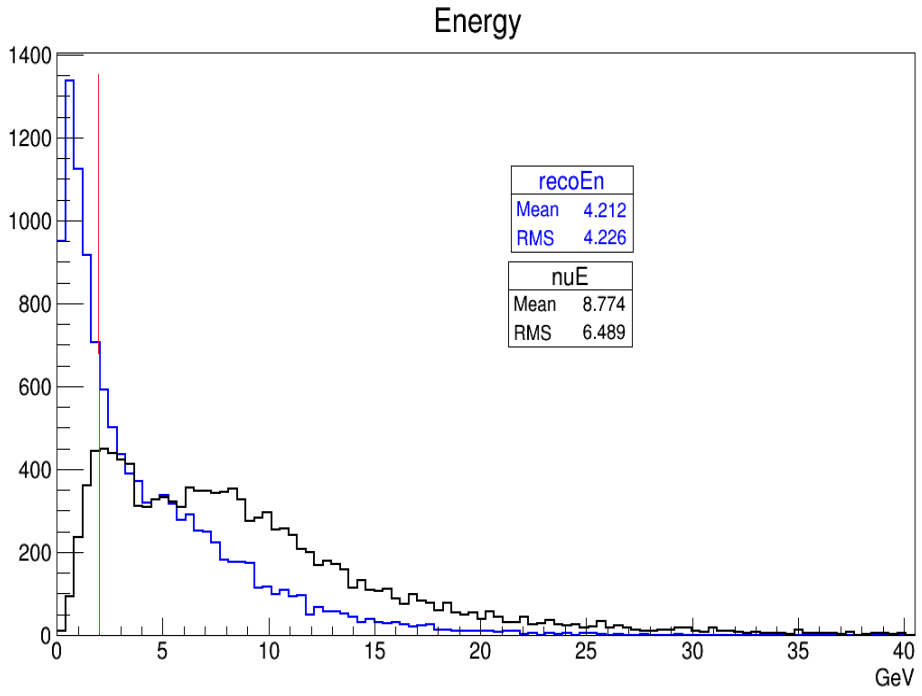
Reco vs True

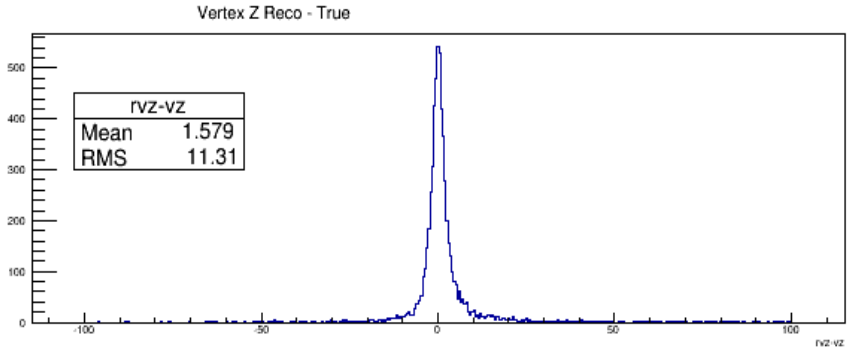


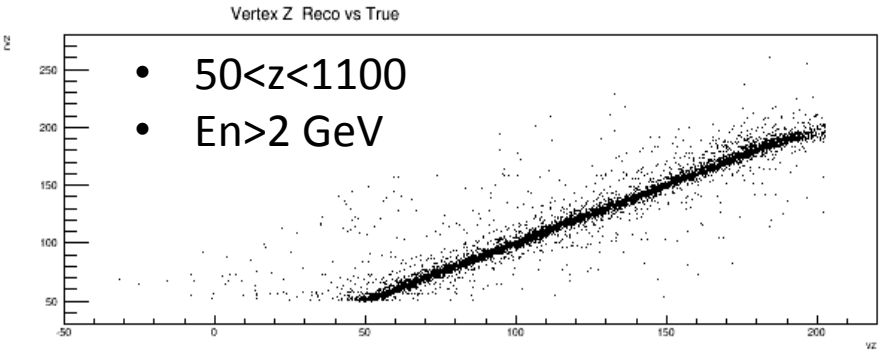

Vertex Z Reco vs True
rvz_vz
Entries 474926
rvz_vz
Entries 210035
2000
1500
1000
500
0
0
500
1000
1500
2000


Vertex Z Reco - True
rvz-vz
Entries 453925
Mean 0.8745
RMS 23.15
50<z<1100
Entries 251703
Mean -2.885
RMS 19.64
outside cuts
Entries 202230
Mean 5.549
RMS 26.15
5000
4000
3000
2000
1000
0
-100
-50
0
50
100
rvz-vz



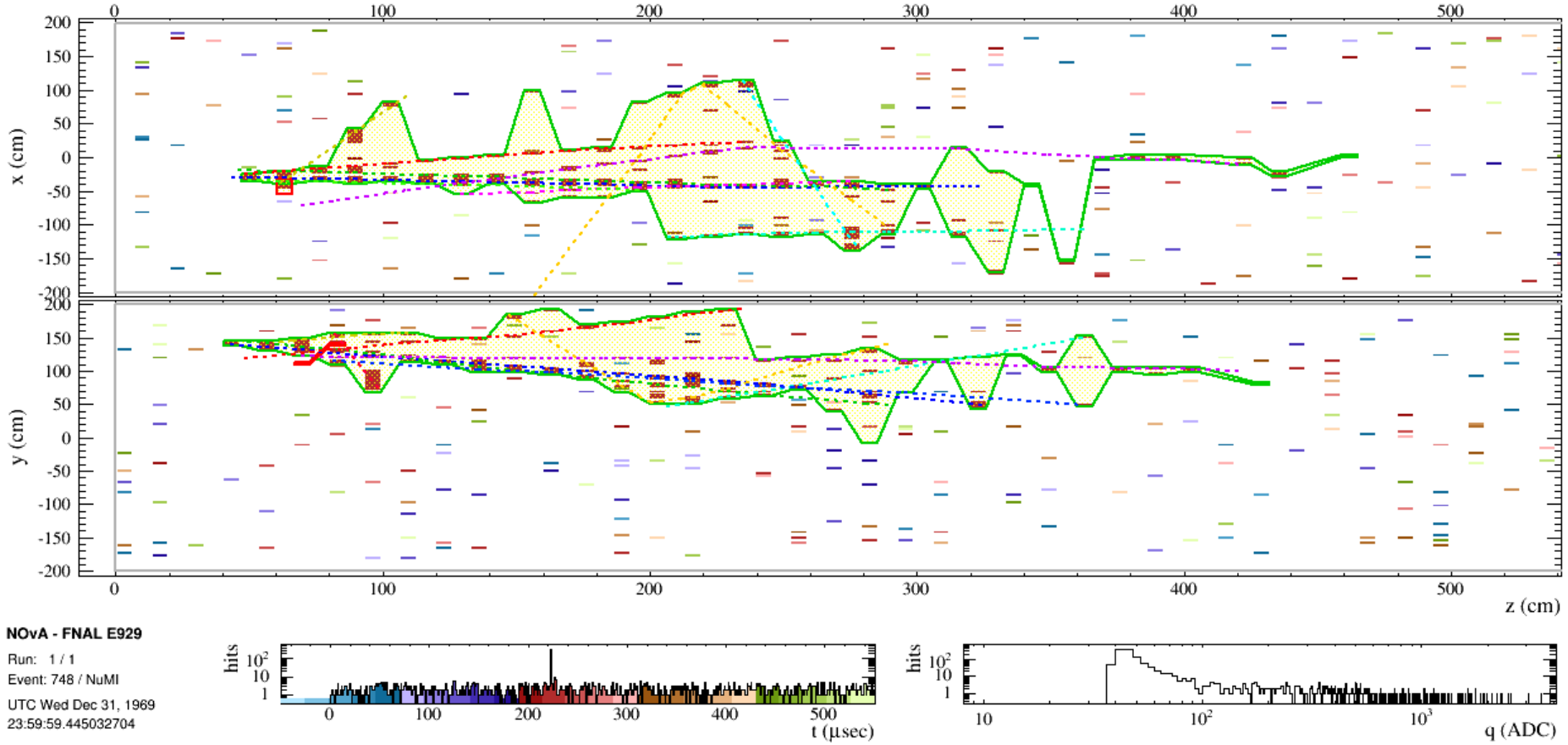


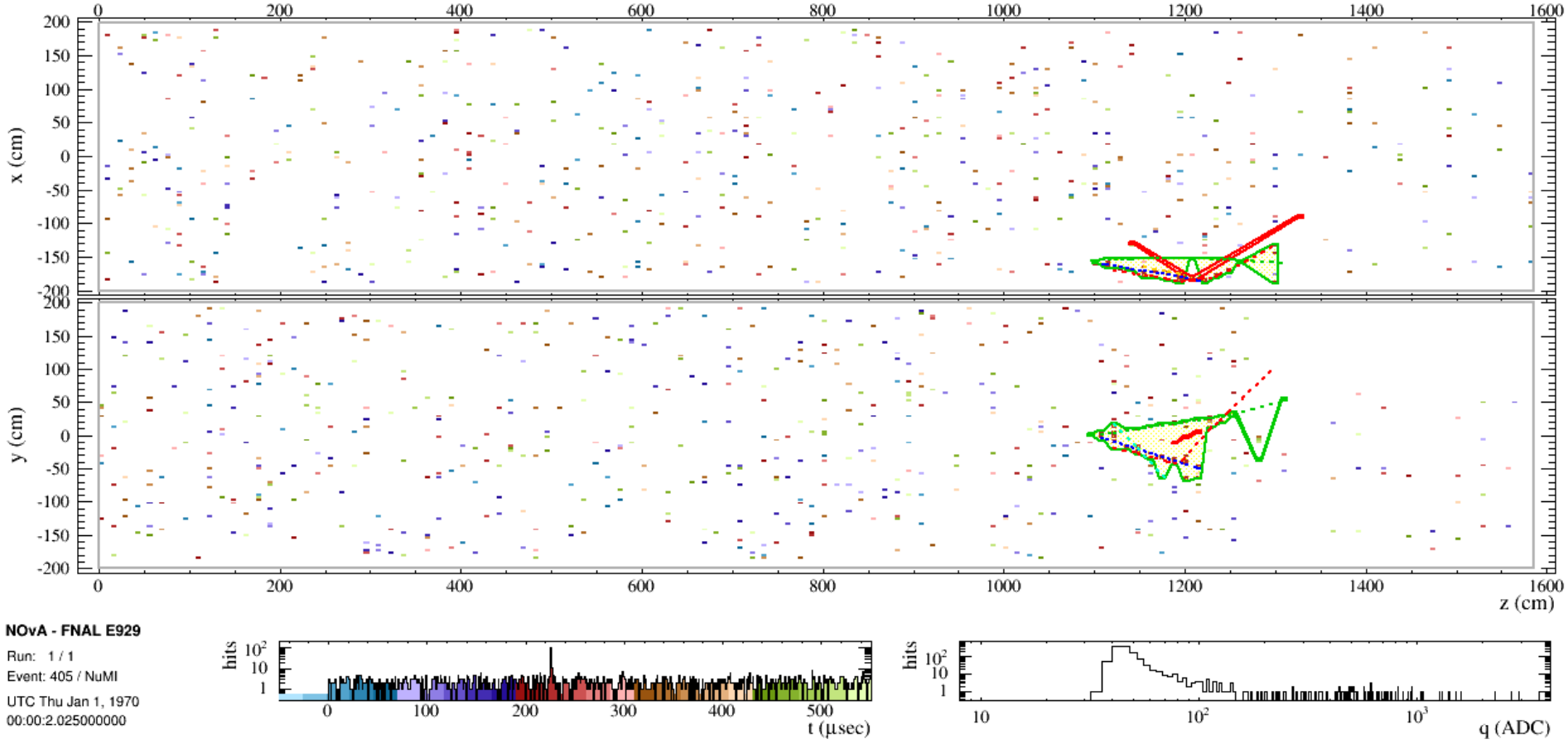




- 50<z<1100
- En>2 GeV

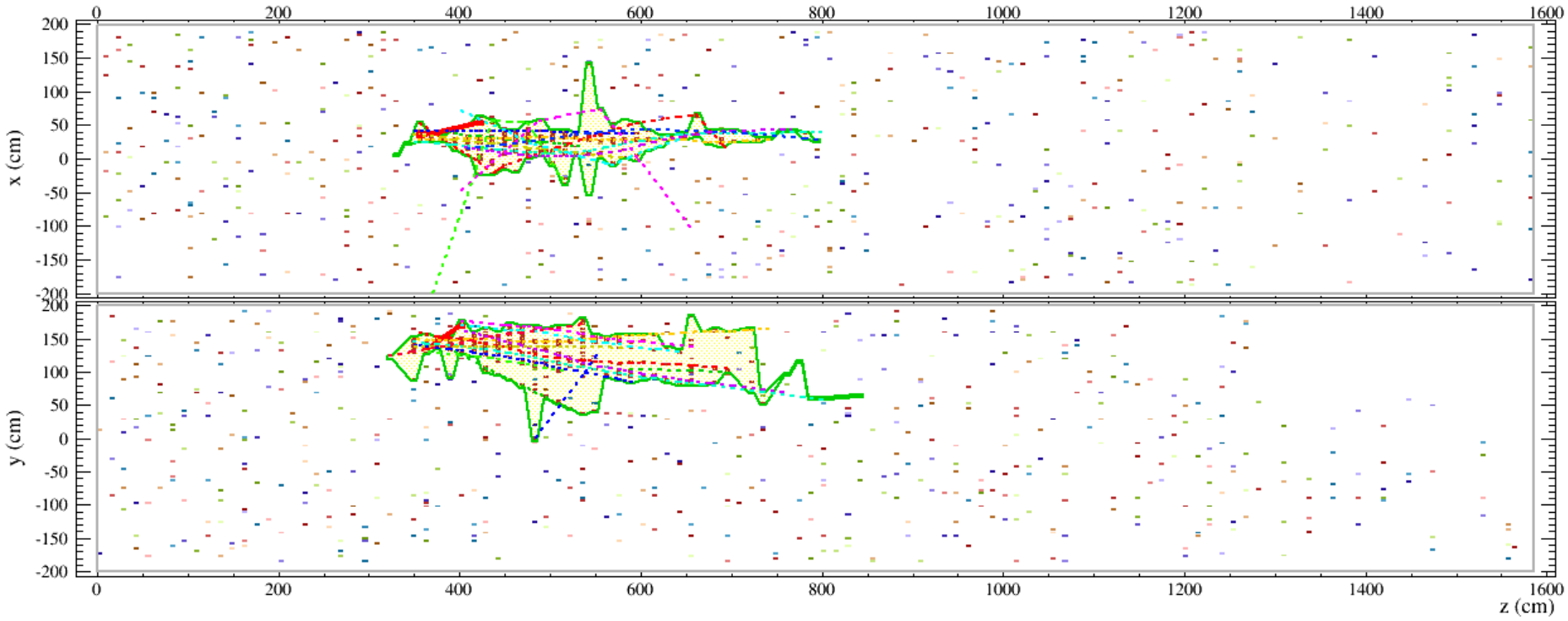
ND – some “3 slices” events





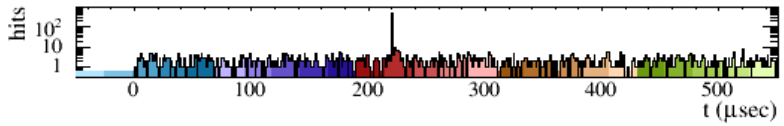
NOvA - FNAL E929

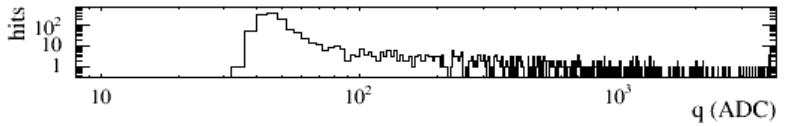
Run: 1 / 1
Event: 405 / NuMI
UTC Thu Jan 1, 1970
00:00:2.025000000



NOvA - FNAL E929

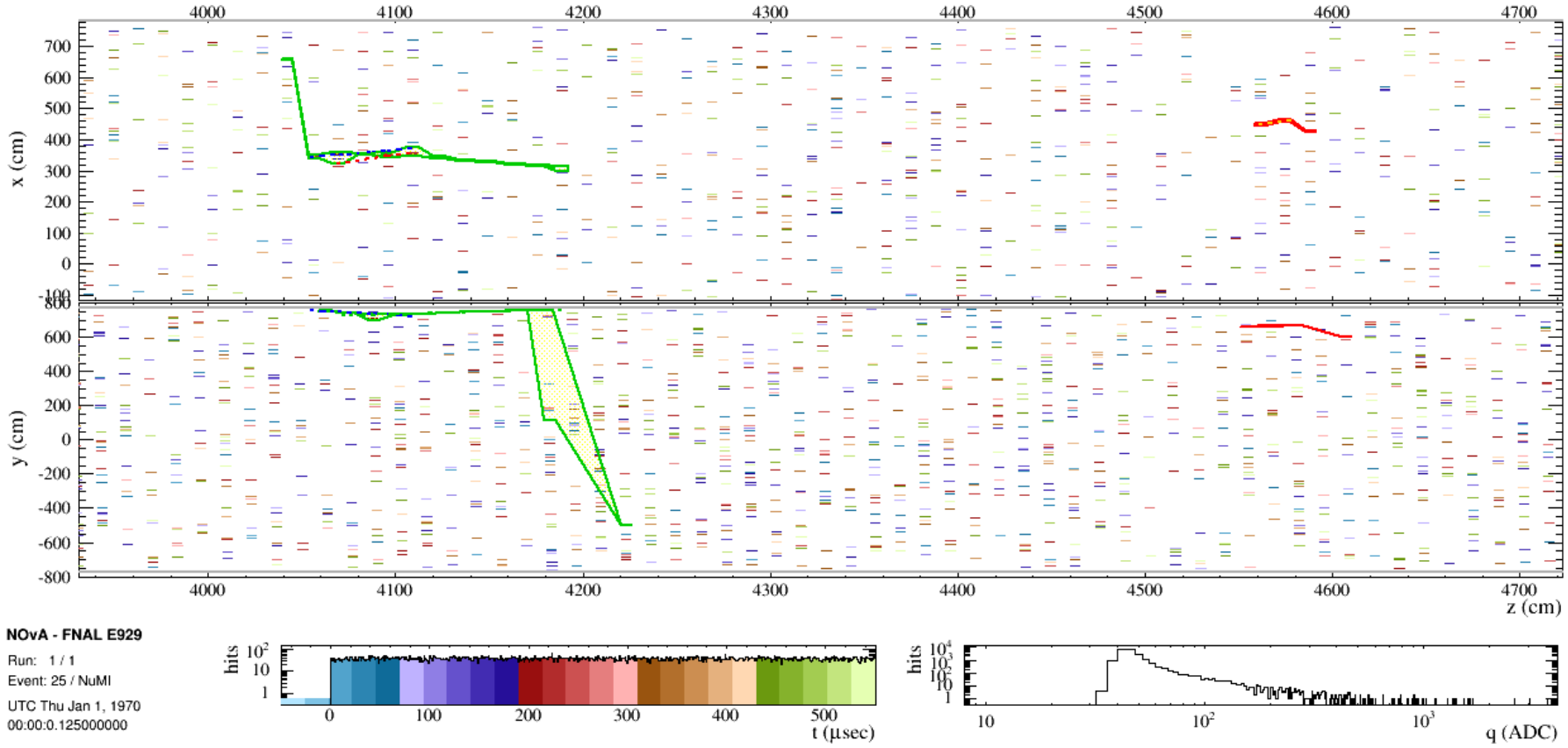
Run: 1 / 1
Event: 957 / NuMI
UTC Thu Jan 1, 1970
00:00:1.490032704

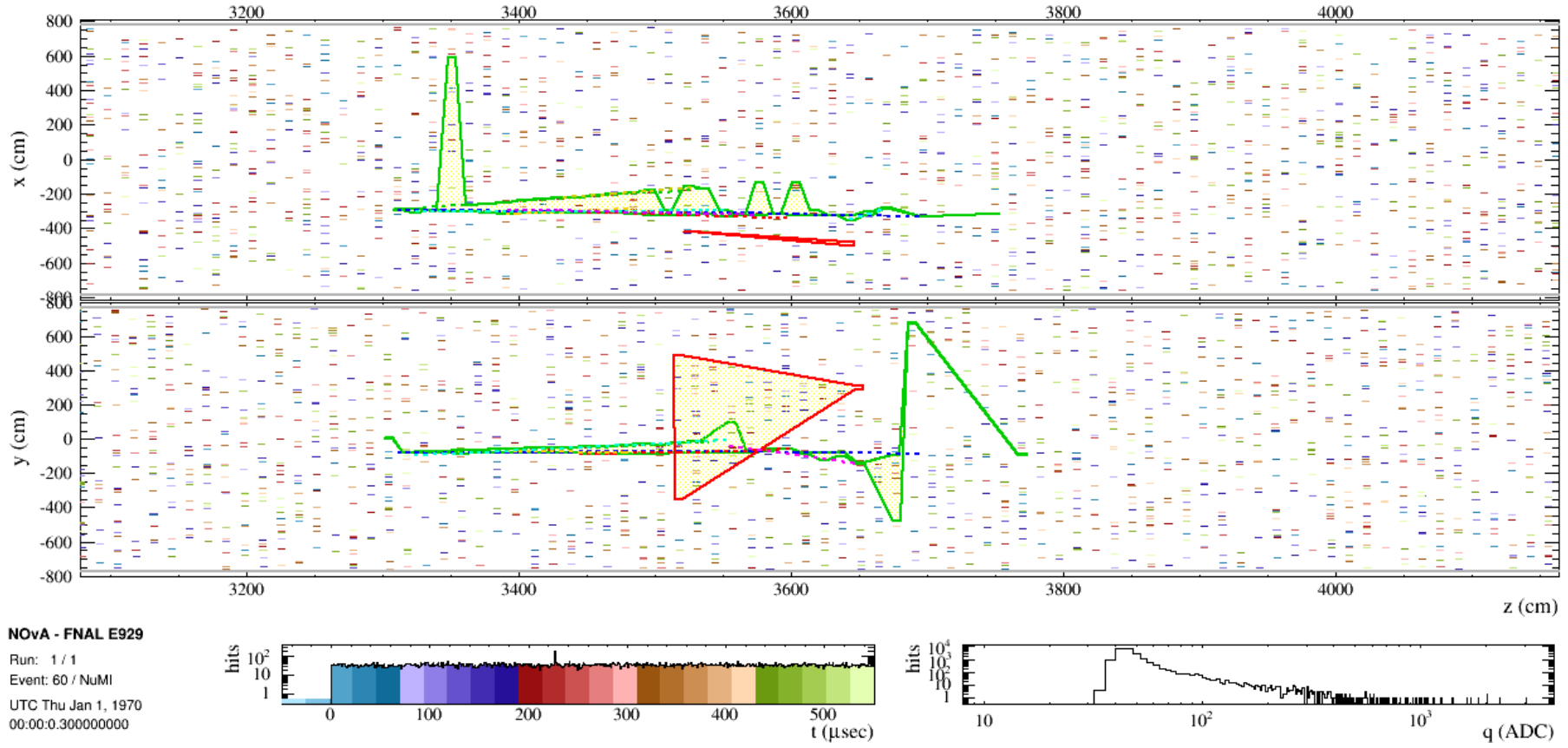




FD – 1000 nue events → 9% of cases with 3 slices in the event

Some event displays

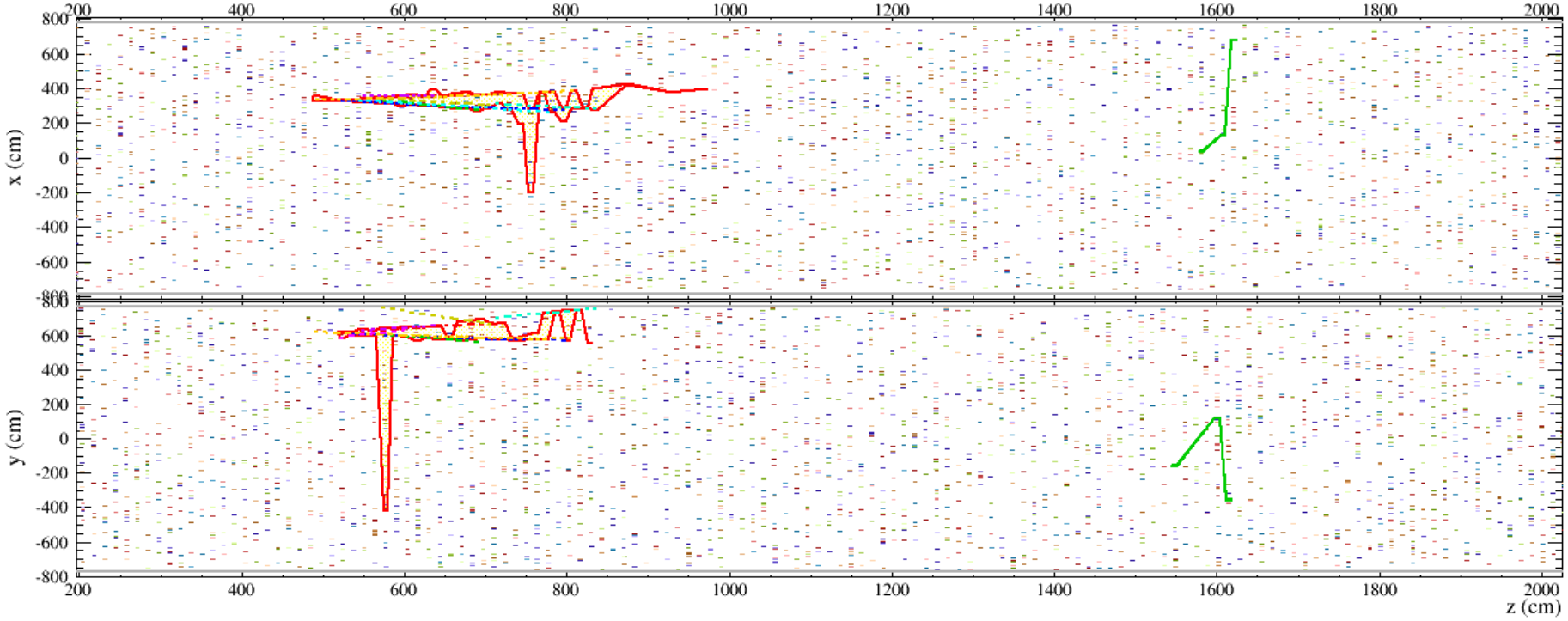




NOvA - FNAL E929

Run: 1 / 1
Event: 60 / NuMI

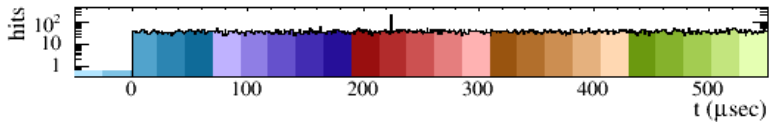
UTC Thu Jan 1, 1970
00:00:0.300000000

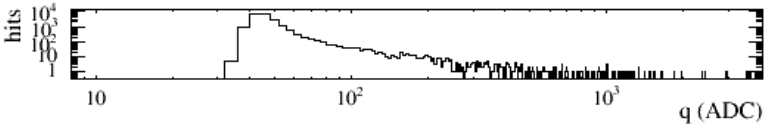


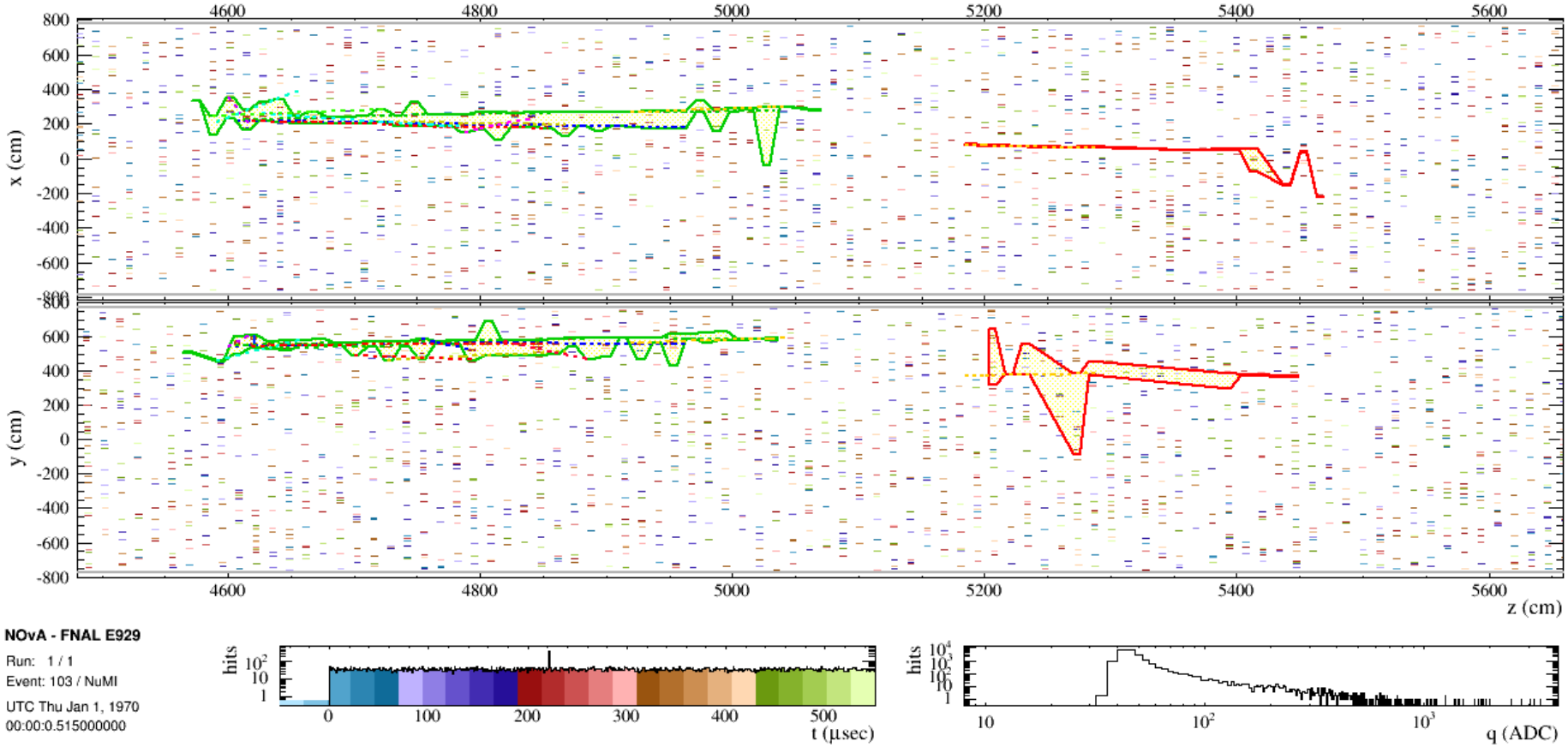
NOvA - FNAL E929

Run: 1 / 1
Event: 72 / NuMI

UTC Thu Jan 1, 1970
00:00:0.360000000



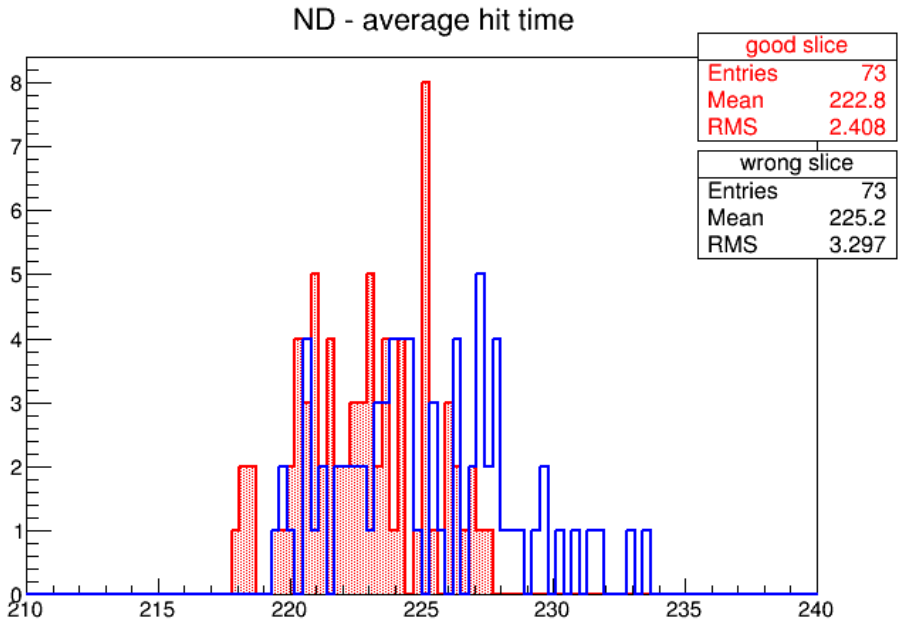


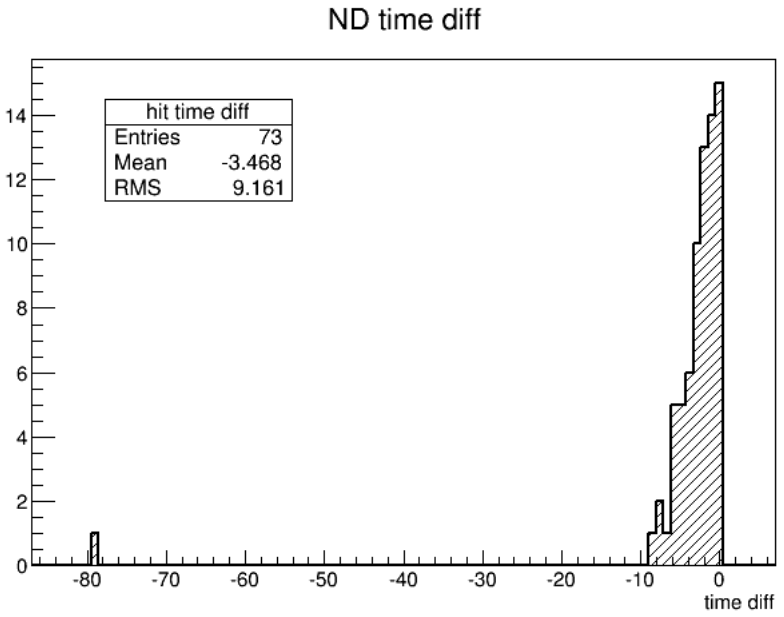


NOvA - FNAL E929

Run: 1 / 1
Event: 103 / NuMI
UTC Thu Jan 1, 1970
00:00:0.515000000

Cases with 3 slices – average time of hits in the good slice, average time of hits in the wrong slice - ND





Cases with 3 slices – average time of hits in the good slice, average time of hits in the wrong slice - FD